REMARKS

Applicant appreciates the Examiner's time and effort in reviewing Applicant's present application. This application has been carefully reviewed in light of the Official Action mailed on June 15, 2005. This Reply encompasses a bona fide attempt to overcome the rejections raised by the Examiner and presents amendments as well as reasons why Applicant believes that the claimed invention, as amended, is novel and non-obvious over the applied prior art. Accordingly, Applicant respectfully requests reconsideration and favorable action in this case.

Claim Status

Claims 1-23 were pending. Claims 1-23 were finally rejected. Claims 1-18 were objected. Claims 1, 9, and 19 are amended herein. No claim is cancelled or newly added. No new matter is introduced. By this Amendment, claims 1-23 are pending.

Claim Objections

Claim 1-18 were objected to because claims 1 and 9 respectively recites "making a routing decision for the first frame based upon the header information stored in the header storage." The Examiner suggested amending claims 1 and 9 to recite "making a routing decision for the first frame based upon the header information read from the header storage," respectively. A phone call was made to the Examiner on July 28, 2005 for clarification on the suggested amendment to claims 1 and 9 indicated in the Office

action. Claims 1 and 9 are amended herein in accordance with the Examiner's suggestion. Accordingly, withdrawal of this objection is respectfully requested.

Rejections under 35 U.S.C. § 102

Claims 1, 3, 7-9, 11-14, 19, 20, and 23 were rejected under 35 U.S.C. § 102(b) as being anticipated by Gallagher et al. (U.S. Patent No. 5,619,497, hereinafter referred to as "Gallagher"). The rejection is respectfully traversed. As the Examiner pointed out on page 5 of the Office action, Gallagher does not explicitly teach, among others, making a routing decision, or allowing a routing decision to be made, on a frame prior to the frame reaching a head position in the receive buffer. As amended, claims 1, 9, and 19 now recite, among others, "making a routing decision, or allowing a routing decision to be made, on a frame prior to the frame reaching a head position in the receive buffer." Since independent claims 1, 9, and 19 now recite subject matter not reached by Gallagher, they are submitted to have sufficiently distinguished Gallagher under 35 U.S.C. § 102(b) and therefore should be allowed. Dependent claims 3, 7-9, 11-14, 20, and 23 are similarly submitted to be patentable over Gallagher per *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). Accordingly, withdrawal of this rejection is respectfully requested.

Rejections under 35 U.S.C. § 103

Claims 2, 21, and 22 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Gallagher. Claim 4 was rejected as being unpatentable over Gallagher in view of Viswanadham (U.S. Patent No. 6,424,659). Claims 5 and 15-18 were rejected as being unpatentable over Gallagher in view of Viswanadham and further in view of Douglas E. Comer (*Internetworking with TCP/IP Vol. 1 Principles, Protocols and Architecture*, hereinafter referred to as "Comer"). Claims 6 and 10 were rejected as being unpatentable over Gallagher in view of Viswanadham and further in view of Darnell et al. (U.S. Patent No. 6,317,415, hereinafter referred to as "Darnell").

Applicant respectfully submits that claims 1-23 recite subject matter not reached by Gallagher, Viswanadham, Comer, and Darnell, individually and in their various combinations, under 35 U.S.C. § 103(a) and therefore should be allowed. As the Examiner pointed out on page 5 of the Office action, Gallagher does not explicitly teach, among others, "making a routing decision, or allowing a routing decision to be made, on a frame prior to the frame reaching a head position in the receive buffer." In the above-mentioned return call, the Examiner also kindly pointed out another distinction between Gallagher and the claimed invention. This distinction relates to the claimed term "routing decision."

In Gallagher, the "routing decision" seems to be made by Frame preprocessor **120** of port **38** at receiving node **24** (col. 7, lines 54-59; FIG. 1). Specifically, Frame preprocessor **120** processes the frame header **54** of each frame that is received at the

receiving node **24**. This preprocess step includes checking the frame designation identification (D_ID) field **76** of the frame header **54**. In the event that the frame destination node specified in header field **76** does not match that of the receiving node **24**, the frame is rejected and the reject frame is "routed" back to the fabric or discarded. It seems that the term "routed" is used loosely to mean "send". The Frame preprocessor **120** does not, in and by itself, make a "routing decision" for each received frame. Rather, it seems that the Frame preprocessor **120** makes a "reject or discard decision" on each received frame that does not have a matching destination ID in the frame header. As a result of the rejection, the mismatched (rejected) frame is "sent back" to the fabric so that it can be ultimately routed to its destination via the fabric. As such, it is the switch(es) of the fabric that make the necessary "routing decisions". What is more, for those received frames that have a matching destination ID, they have arrived at their destination (the receiving node) and no "routing decision" would be necessary. Therefore, the Frame preprocessor **120** does not make a "routing decision" for delivering each and every one of the received frame to its destination.

Contrastingly, the invention teaches, *inter alia,* a buffer system and method implemented at a switch for routing each received frame to its destination identified by the corresponding header information which is read from a header storage. In embodiments of the invention, the routing decision is made prior to the frame reaching a head position in a receive buffer, while a preceding frame is being routed. The ability of the embodiments of the invention to allow for "the routing decision for the next frame to be made before the preceding frame is completely read out of the received buffer"

advantageously reduces the latency of the frame's transport and increases the throughput of the overall system.

Viswanadham was applied for the teaching of a pipelining technique. It is not clear how Gallagher and Viswanadham could be combined to arrive at a system as taught and claimed in the present application. Gallagher is directed to reordering frames of a packet received by a node. The plurality of switches **12-20** in switch fabric **10** of Gallapher appear to be conventional switches. Gallapher does not suggest any desirability to modify these conventional switches.

On the other hand, Viswanadham is directed to multi-layer switching. The above-mentioned pipelining technique is used to enable simultaneous wire-speed routing at different layers of interfaces in various operational modes. The cited col. 6, lines 12-40, of Viswanadham refers to a receive arbiter **80** that services receive port requests at a local area network (LAN) interface **40**. The receive arbiter **80** implements the pipelining technique to provide improved performance. Specifically, "if receive port is under service, next request prioritization occurs in parallel" (col. 6, lines 15-16).

Thus, assuming one of ordinary skill in the art, at the time the invention was made, were motivated to combine Gallagher and Viswanadham, the resulting combination might have had the ability to preprocess frames (accept, reject, or discard) at a receiving node, as taught by Gallagher, and the ability to service and prioritize requests in parallel at a network interface, as taught by Viswanadham. However, the combination of

Gallagher and Viswanadham would not have resulted a buffer system and method capable of "making a routing decision for delivering each received frame to its destination according to the corresponding header information read from a header storage before the frame reaches a head position in a receive buffer," as taught and claimed in the present application. It is therefore respectfully submitted that the claimed invention as set forth in claims 1-23 recite subject matter not reached by the alleged combination of Gallagher and Viswanadham. For similar reasons, the claimed invention is submitted to be patentable over the combinations of Gallagher, Viswanadham, Comer, and Darnell. Accordingly, withdrawal of this rejection is respectfully requested.

Conclusion

For the foregoing reasons, claims 1-23 are submitted to be patentable under 35 U.S.C. §§ 102(b) and 103(a). Favorable consideration and a Notice of Allowance of all pending claims 1-23 are therefore earnestly solicited.

Applicant has now made an earnest attempt to place this case in condition for allowance. The Examiner is invited to telephone the undersigned at the number listed below for discussing an Examiner's Amendment or any suggested actions for accelerating prosecution and moving the present application to allowance.

Other than as explicitly set forth above, this reply does not include any acquiescence to statements, assertions, assumptions, conclusions, or any combination thereof in the Office Action.

The Director of the U.S. Patent and Trademark Office is hereby authorized to charge any fees or credit any overpayments to Deposit Account No. 50-3183 of Sprinkle IP Law Group.

Respectfully submitted,

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